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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,331	08/10/2001	Kristiaan Johan Hubert Ghislanus Venken	Q65268	6160

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EXAMINER

QURESHI, AFSAR M

ART UNIT PAPER NUMBER

2616

DATE MAILED: 07/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

### Period for Reply

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.  
2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15 is/are allowed.
- 6) ☒ Claim(s) 1 and 3-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is responsive to Arguments/Remarks received on 5/3/2006.

### ***Response to Arguments***

2. Applicant's arguments filed 5/3/2006 have been fully considered but they are not persuasive. Applicant argued that the cited art, Zheng et al. (US 5,745,477), teaches only one network element as opposed to claimed plurality of elements. However, Zheng only discloses the preferred embodiments of the invention and thereby conceives that those skilled in the art can realize possible modifications and alternatives that are within the scope of the invention (col. 1, lines 49-51 and col. 8, lines 42-45). Examiner believes having a plurality of network elements is within the realization of skilled artisan in the same field of endeavor. Additionally, Zheng discloses external memory that controls the flow of cells and adjusts cell transmission rates and determines what cells to send and also determines delay time. The Examiner believes the cited art anticipates all the limitations as argued. Furthermore, all those variations in the alternative structure that fall within the scope of this invention can readily be conceived by one of skilled in the art.

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3. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

4. Claims 1, 3, 10, 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Zheng et al. (US 5,745,477).

Zheng et al. discloses a communication system comprising the following features:

regarding claim 1, a communication method for a communication network comprising a buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60), a line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) and a plurality of network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10), said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) being-coupled to said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84), and said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) being-coupled to each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10) over a shared medium, wherein said communication method comprises interacting between said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) and said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) to adjust (Fig. 5, ABR CONTROLLER 82, TRAFFICE SHAPER 80; column 4, lines 1-9) a cell input/output rate of said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) to at least one bandwidth related condition (Fig. 2, BACKWARD RM CELLS) of each of said network termination elements (Fig. 1,

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DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10), wherein said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) notifies said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) to adjust (Fig. 5, ABR CONTROLLER 82, TRAFFICE SHAPER 80; column 4, lines 1-9) said cell input/output rate of said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) to said at least one bandwidth related condition of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10); regarding claim 3, a communication method for a communication network comprising a buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60), a line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) and a plurality of network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10), said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) coupled to said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84), and said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) coupled to each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10) over a shared medium, wherein said communication method comprises interacting between said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) and said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) to adjust (Fig. 5, ABR CONTROLLER 82, TRAFFICE SHAPER 80; column 4, lines 1-9) a cell input/output rate of said buffering element (Fig. 5, MEMORY

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70, TRAFFIC MANAGEMENT SYSTEM 60) to at least one bandwidth related condition (Fig. 2, FORWARD RM CELLS) of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10), wherein said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) notifies said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) to adjust (Fig. 5, ABR CONTROLLER 82, TRAFFICE SHAPER 80; column 4, lines 1-9) said at least one bandwidth related condition of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10) to said cell input/output rate of said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60); regarding claim 10, a buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) to be used in a communication network, said communications network comprising a line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) and a plurality of network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10), said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) being-adapted to allocate bandwidth to each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system not shown in ATM NETWORK 10), said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) coupled to said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84), and said line termination element (Fig. 5, RECEIVER 85, TRANSMITTER 84) being coupled to each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end system

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not shown in ATM NETWORK 10) over a shared medium, said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) comprising: a buffering part (Fig. 5, MEMORY 70), adapted to store cells sent to said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60); a measuring part (Fig. 5, TRAFFIC MANAGEMENT SYSTEM 60), coupled with an input to an output of said buffering part and adapted to determine a criterion based on a cell input/output rate of said buffering part; and an interpreting part (Fig. 5, TRAFFIC MANAGEMENT SYSTEM 60), coupled with an input to an output of said a measuring part and adapted to generate an interpretation of said criterion based on said cell input/output rate of said buffering part (Fig. 5, MEMORY 70), wherein said buffering element (Fig. 5, MEMORY 70, TRAFFIC MANAGEMENT SYSTEM 60) further comprises: a notification part, coupled with an input to an output of said interpreting part and adapted to notify (Fig. 2, FORWARD RM CELLS) said line termination (Fig. 5, RECEIVER 85, TRANSMITTER 84) of said interpretation of said criterion based on said cell input/output rate of said buffering part (Fig. 5, MEMORY 70); regarding claim 11, wherein said criterion is a characteristic (column 4, lines 54-59) of cells sent to said buffering element. See column 1-8.

5. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Zheng et al. (US 5,745,477).

Zheng et al. discloses a communication system comprising the following features: regarding claim 7, a line termination element (Fig. 5, NETWORK INTERFACE

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CONTROLLER 62) to be used in a communication network, said communication network comprising a buffering element (Fig. 5, MEMORY 70) and a plurality of network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10), said buffering element (Fig. 5, MEMORY 70) being coupled to said line termination element (Fig. 5, NETWORK INTERFACE CONTROLLER 62), and said line termination element being coupled to each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10) over a shared medium, said line termination element (Fig. 5, NETWORK INTERFACE CONTROLLER 62) comprising : a detection part (Fig. 5, RECEIVER 85; TRANSMITTER 84), adapted to detect at least one condition of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10); and a condition interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80), coupled with an input to an output of said detection part (Fig. 5, RECEIVER 85; TRANSMITTER 84) and adapted to derive an interpretation of said at least one condition of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10), wherein said line termination element (Fig. 5, NETWORK INTERFACE CONTROLLER 62) further comprises: a notification part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) , coupled with an input to an output of said condition interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) and adapted to notify said buffering element (Fig. 5, MEMORY 70) of said interpretation of



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said at least one condition of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10); regarding claim 8, wherein said condition interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) is adapted to derive a bandwidth allocation for each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10), based on said at least one condition of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10); regarding claim 9, wherein said condition interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) is adapted to transparently pass said at least one condition of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10). See column 1-10.

6. Claims 4, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zheng et al. (US 5,745,477) in view of Soumiya et al. (US 6,094,418).

Zheng et al. discloses a communication system comprising the following features: regarding claim 4, buffering element to be used in a communication network, said communications network comprising a line termination element (Fig. 5, RECEIVER 85; TRANSMITTER 84) and a plurality of network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10), said buffering element being coupled to said line termination element (Fig. 5, RECEIVER 85; TRANSMITTER 84), and said line termination element (Fig. 5,

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RECEIVER 85; TRANSMITTER 84) being coupled to each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10) over a shared medium, said buffering element comprises: a buffering part (Fig. 5, MEMORY 70) adapted to store cells sent to said buffering element; a measuring part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) , coupled with an input to an output of said buffering part (Fig. 5, MEMORY 70) and adapted to determine a criterion based on a cell input/output rate of said buffering part (Fig. 5, MEMORY 70); an interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80), coupled with an input to an output of said measuring part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) and adapted to interpret said criterion based on said cell input/output rate of said buffering part (Fig. 5, MEMORY 70) , wherein said buffering element further comprises: a reception part, coupled with an output to an input of said interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) and adapted to receive a notification (Fig. 2, BACKWARD RM CELLS) of said line termination containing an interpretation of at least one condition of each of said network termination elements (Fig. 1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM NETWORK 10), and that said interpreting part (ABR CONTROLLER 82, TRAFFIC SHAPER 80) is adapted to derive said instruction from said notification (Fig. 2, BACKWARD RM CELLS) of said line termination on said interpretation of said at least one condition of each of said network termination elements (Fig. '1, DESTINATION END SYSTEM 14; and other end systems not shown in ATM

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NETWORK 10); regarding claim 5, wherein said criterion is a characteristic (column 4, lines 54-59) of cells sent to said buffering element. See column 1-10.

Zheng et al. does not disclose the following features: being adapted to derive therefrom an instruction for a policing part whether or not to discard or mark said cells sent to said buffering element, a policing part, coupled with an input to an output of said interpreting part and adapted to discard or mark said cells sent to said buffering element, based on said instruction of said interpreting part.

Soumiya et al. discloses a communication system comprising the following features: being adapted to derive therefrom an instruction for a policing part (Fig. 3, UPC FOR ABR 4, column 3, lines 60-62) whether or not to discard or mark said cells sent to said buffering element (Fig. 7, SHARED BUFFER MEMORY 21), a policing part (Fig. 3, UPC FOR ABR 4, column 3, lines 60-62), coupled with an input to an output of said interpreting part and adapted to discard or mark said cells sent to said buffering element (Fig. 7, SHARED BUFFER MEMORY 21), based on said instruction of said interpreting part. See column 1-43. It would have been obvious to one the ordinary skill in the art at the time of the invention to modify the system Zheng et al., by using the features, as taught by Soumiya et al., in order to provide a reliable communication system by preventing a network congestion based on feedback control. See Soumiya et al., column 1, lines 7-9.

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7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zheng et al. (US 5,745,477) in view of Soumiya et al. (US 6,094,418) as applied to claim 4 above, and further in view of Smith et al. (US 6,452,905).

Zheng et al. and Soumiya et al. disclose the claimed limitations above. Zheng et al. and Soumiya et al. do not disclose the following features: regarding claim 6, wherein said criterion is a filling level of said buffering part (column 12, lines 5-24). It would have been obvious to one the ordinary skill in the art at the time of the invention to modify the system Zheng et al. and Soumiya et al., by using the features, as taught by Smith et al., in order to provide a reliable communication system by avoiding buffer overflow and consequent loss of data. See Smith et al., column 4, lines 21-23.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zheng et al. (US 5,745,477) in view of Smith et al. (US 6,452,905).

Zheng et al. discloses the claimed limitations above. Zheng et al. does not disclose the following features: regarding claim 12, wherein said criterion is a filling level of said buffering part (column 12, lines 5-24). It would have been obvious to one the ordinary skill in the art at the time of the invention to modify the system Zheng et al., by using the features, as taught by Smith et al., in order to provide a reliable communication system by avoiding buffer overflow and consequent loss of data. See Smith et al., column 4, lines 21-23.

***Allowable Subject Matter***

9. Claims 13-15 are allowed.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**AFSAR QURESHI**  
**PRIMARY EXAMINER** 6/26/06

6/26/2006